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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,461	12/21/2000	John E. Schier	062891 . 0490	2553

7590

05/19/2004

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EXAMINER

HO, THOMAS M

ART UNIT

PAPER NUMBER

2134

3

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,461

Applicant(s)

SCHIER, JOHN E.

Examiner

Thomas M Ho

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/21/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-10 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,4-6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Pegg.

In reference to claim 1:

Pegg discloses a method for communicating a data message comprising:

- Selecting a table key value to be used as an index into an encryption selection table, the key value being a function of a periodic key value and a public variable key value, where the periodic key value and the public variable key value is second cipher key and the first cipher key. (Column 2, lines 43-63)
- the encryption selection table specifying at least one of a plurality of encryption methods to be used to encrypt a data message, where an enciphering algorithm selection table is disclosed; (Figure 1)
- Encrypting the data message using the indicated encryption method, where the chosen method encrypts the access codes. (Column 4, lines 48-52)

- Transmitting the encrypted data message, where the data message is transmitted by the user and transmitted to the user. (Figure 2a, step 215)

In reference to claim 2:

Pegg discloses the method of claim 1 and further comprising:

Receiving a periodic key value and a public variable key value at a communication device storing the encryption selection table, where the first cipher key and the second cipher key is received at the server in order to compute the access code. (Column 2, lines 40-50)

Calculating the table key value from the public variable key value and the periodic key values, where the access code is generated based on the values of the first cipher key and the second cipher key. (Column 2, lines 40-50) & (Column 4, lines 29-34)

In reference to claim 4:

Pegg(Column 2, lines 45-50) discloses the method of claim 1 wherein the periodic key value comprises a predetermined number agreed upon between a transmitter and a recipient of the data message, where the periodic key values is the second cipher key, or the PIN number, predetermined and agreed upon by both parties.

In reference to claim 5:

Pegg(Column 2, lines 45-50) discloses the method of claim 1 wherein the public variable key value comprises a numeric value which is variable and which is available to both the recipient

and the transmitter of the data message, wherein the public variable key is a first cipher key such as the current Dow Jones Industrial Average.

In reference to claim 6:

Pegg discloses a data communication device operable to transmit and receive data messages to and from a data communication network, the device comprising:

- A central processing unit operable to interface with a user of the device through a user interface, where the central processing unit is the CPU in any computer system such as that frequently used to implement an ATM system.
- An encryption decryption engine under the control of the central processing unit and operable to execute a plurality of encryption programs, each of the encryption programs being different than the remainder of the plurality and each of the encryption programs operable to receive a message and to output an encrypted message, where each of the encryption algorithms disclosed may be executed by a CPU running the algorithms and where each of them receive a message consisting of keys and output a message code.

(Column 4, lines 29-40)

- An encryption selection table accessible using a key value, the encryption selection table specifying at least one of the plurality of encryption programs to be used for each key value, where an enciphering algorithm selection table is disclosed; (Figure 1)

In reference to claim 8:

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Pegg(Column 2, lines 40-50) discloses the device of claim 6 wherein the key value comprises a table key value and further comprising a user interface operable to prompt a user of the device and to receive a public variable key value and a periodic key value, the table key value calculated as a function of at least one or both of the public variable key value and the periodic key value, where the user is prompted to enter the necessary information (Figure 2a), consisting of the first and second cipher keys. (Column 2, lines 40-50)

In reference to claim 9:

Pegg (Column 2, lines 45-50) discloses the device of claim 8 wherein the public variable key value comprises a numeric value which is variable and which is available to both the recipient and the transmitter of the data message, wherein the public variable key is a first cipher key such as the current Dow Jones Industrial Average.

In reference to claim 10:

Pegg (Column 2, lines 45-50) discloses the device of claim 8 wherein the periodic key value comprises a predetermined number agreed upon between a transmitter and a recipient of the data message, where the periodic key values is the second cipher key, or the PIN number, predetermined and agreed upon by both parties.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pegg.

In reference to claim 3:

Pegg(Figure 2b) discloses:

Selecting a second encryption method also specified by the table key value from the encryption selection table, where a second selection method may be determined by selecting a different algorithm in the algorithm selection table.

Pegg however fails to explicitly disclose:

Encrypting the data message a second time using the second encryption method prior to transmitting the encrypted message.

The examiner takes official notice that second encrypting a message in succession or serially was well known in the art at the time of invention.

Well known examples are 3-DES, or Finley(US patent 5,742,686), Moore(US patent 5,343,527), or Campinos(US patent 6,091,818)

Furthermore, Finley(Column 2, lines 34-40) even teaches that one of that advantages of serially/multiply encrypting data when encryption methods are dynamically selected is advantageous.

“Even if a hacker knows every encryption code and password that the user could use, the hacker has no way of knowing which encryption codes will be randomly selected or the order of repetition count in which they will be executed”

It would have been obvious to one of ordinary skill in the art at the time of invention to second encrypt the data using a selected algorithm from an algorithm table before transmitting it to another party because it would provide an extra layer of security in the encryption.

Claim 7 is rejected for the same reasons as claim 3.

Conclusion

4. The following additional prior art is considered pertinent and made of record:
- US patent 4853962 Discloses a system where an encryption method may be chosen from a given pool
 - US patent 5343527 Discloses a multiple encryption system that combines both a private key algorithm with a public key algorithm
 - US patent 6091818 Discloses a system that employs multiple encryption.
 - US patent 5742686 Discloses an encryption system wherein different encryption algorithms may be selected from a pool of methods and encrypted in a serial manner.

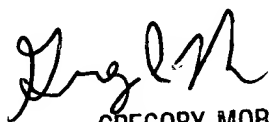
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M Ho whose telephone number is (703)305-8029. The examiner can normally be reached on M-F from 8:30am – 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached at (703)308-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.

TMH

May 13th 2004


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100